

Appl. No. 10/015,241
Amdt. dated 05/26/2004
Reply to Office Action of 03/08/2004

IN THE SPECIFICATION:

Please amend the first full paragraph on page 11 as shown below:

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Fig. 4 is a conceptual view of an LVM. In Fig. 4 three layers are depicted, an application layer 400, a logical layer 410 and a physical layer 420 each having one or more devices. It should be noted that the devices shown in the three layers are not all inclusive. There may be more devices in use in each of the application layer 400 412, the logical layer 410 and the physical layer 420 430. Thus, the devices in Fig. 4 should be taken only as an example of devices that may be used.

Please amend the paragraph that starts on page 11, line 25 and ends on page 12, line 11 as shown below:

A2
The logical layer 410 contains a logical volume 412 that interacts with logical volume device driver 414. A device driver, as is well known in the art, acts as a translator between a device and programs that use the device. That is, the device driver accepts generic commands from programs and translates them into specialized commands for the device. In this case, the logical volume device driver 414 translates commands from an application program executing on the computer system for device driver 430. When an application program sends commands to file system manager 402 to store or retrieve data from logical volume 412, the file system manager 402 informs the logical

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volume manager 412 of the application program's wish. The logical volume manager 412 then conveys the wish to the logical volume device driver 414. The logical volume device driver 414 then consults the appropriate mirroring map, policies etc. and instructs the device driver 430 which ones of physical storage systems 422, 424, 426 and 428 to use for the data.

Please amend the paragraph that starts on page 12, line 12 and ends on page 12, line 27 as shown below:

A3

Thus, if the data being stored is to be mirrored, the data will be stored according to an appropriate mirroring map (e.g., data from each logical partition will be stored in more than one physical partition of the storage systems as per the mirroring map). The mirroring map is usually entered into the LVM by a system administrator. Mirroring data is described in APPARATUS AND METHOD OF CREATING A MIRRORING MAP FOR USE WITH DIFFERENT PIECES OF DATA, serial number [[____]] 10/015,223, filed on [[____]] December 12, 2001 (~~IBM Docket AUS920010862US1~~), the disclosure of which is herein incorporated by reference.

Please amend the paragraph that starts on page 12, line 28 and ends on page 13, line 10 as shown below:

A4

Fig. 5 depicts two storage management systems that are used on a computer system. The first storage management
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system includes an application layer 500, a logical layer 510 and a physical layer 520. The application layer contains a file system manager 502. The logical layer 510, which is the LVM, contains logical volume 504 and logical volume device driver 506. The physical layer 520 has therein a device driver 508 that interacts with storage devices 512, 514, 516 and 518. The second storage management system includes a logical layer 560 and a physical layer 570. The logical layer 560, which is the LVM for this storage management system, contains logical volume 554 and logical volume device driver 556. The physical layer 570 has therein a device driver 558 that interacts with storage devices 562, 564, 566 and 568. The elements in Fig. 5 perform the same function as similar elements described in Fig. 4.

In any event, the The two storage management systems in Fig. 5 are dissimilar and incompatibly formatted. Logical volume device driver 506 of LVM 510 is connected to logical volume device driver 556 of LVM 560. Accordingly, when a piece of data being stored on the computer system is to be mirrored and if the data is to be stored into the two physical storage systems, the logical volume device driver 506 will forward a copy of the data to logical volume device driver 556. The logical volume device driver 556 will then instruct device driver 558 to store the data into any or all of physical storage systems 562, 564, 566 and 568 as per a storage map. Meanwhile the other mirrored copy or copies of the data will be stored into any or all of physical storage systems 512, 514, 516 and 518 of the first computer system.

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